

### REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-11 are pending in the present application. Claims 1, 5, and 9 are amended by the present amendment.

In the outstanding Office Action, Claims 1-11 were rejected under 35 U.S.C. § 102(e) as anticipated by Kato et al. (U.S. Patent 6,928,041, herein Kato).

In light of the outstanding rejection on the merits, independent Claims 1, 5, and 9 are amended to more clearly recite various relationships among an amplitude variation signal generator, an offset signal generator, a reference signal generator, and a pre-pit detector. The claim amendments find support in Figure 2 and its corresponding description in the specification. No new matter has been added.

Briefly recapitulating, amended Claim 1 is directed to a disk drive that includes, *inter alia*, a push-pull signal generator, an amplitude variation signal generator, an offset signal generator, a reference signal generator, and a pre-pit detector. The push-pull signal generator generates a push-pull signal and the amplitude variation signal generator, which is connected to the push-pull signal generator, generates and outputs a fundamental amplitude variation signal indicating the fundamental amplitude variation of the push-pull signal. The offset signal generator generates an offset signal and the reference signal generator, which is connected to the amplitude variation signal generator and to the offset signal generator, generates a reference signal by adding the offset signal received from the offset signal generator to the fundamental amplitude variation signal received from the amplitude variation signal generator. The pre-pit detector is connected to the push-pull signal generator and to the reference signal generator and compares the push-pull signal with the reference signal and

outputs a comparison result as a pre-pit detection signal. Independent Claims 5 and 9 have been amended similar to Claim 1.

In a non-limiting example, Figure 2 shows the push-pull signal generator 9a-c, the amplitude variation signal generator 44, the offset signal generator producing the offset data Dth, the reference signal generator 42, and the pre-pit detector 41.

Turning to the applied art, Kato shows in Figure 6 a pre-pit detecting apparatus that includes an adder 21, two amplifiers 31 and 32, a radial push-pull signal 33, a binarization circuit 34, and a threshold setting circuit 35. The outstanding Office Action asserts in the paragraph bridging pages 3 and 4 that Kato discloses the claimed elements of Claim 1 discussed above.

It is noted that the outstanding Office Action does not identify any of the claimed generators and detector with elements of the pre-pit detecting apparatus of Kato shown in Figures 6 and 7.

It appears that the outstanding Office Action suggests that the claimed push-pull signal generator corresponds to element 33 in Figure 6 of Kato, the claimed amplitude variation signal generator corresponds to circuit 34 of Kato, and the claimed offset signal generator corresponds to the threshold setting circuit 35 shown also in Figure 6 of Kato. In addition, the outstanding Office Action appears to suggest that Figure 7 of Kato shows the push-pull signal and the reference signal being compared in a unit 61.

However, Applicants respectfully submit that Kato does not teach or suggest a reference signal generator connected to (i) an amplitude signal generator, and (ii) an offset signal generator for generating a reference signal based on the received signals from the two generators (i) and (ii), as required by amended Claims 1, 5, and 9.

Accordingly, it is respectfully submitted that independent Claims 1, 5, and 9 and each of the claims depending therefrom patentably distinguish over Kato.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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